

Notice of Allowability

Application No.

10/758,784

Examiner

Mr. Terry K. Cecil

Applicant(s)

DAVENPORT, ROBERT N.

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the telephonic interview of 6-6-2006.
2. ☒ The allowed claim(s) is/are 1-19 which will remain as numbered.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20060606.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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Note: Claims 1-19 are allowed and will remain as numbered upon allowance.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Clifford Poff on 6-6-2006.

Required Drawings Changes

2. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Figure 1 will have a "prior art" label and the numbering in all figures will be made with uniform lines. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

3. The application has been amended as follows:

- Specification has been amended as follows:

Page 2, line 19, "ling" has been replaced with —line—;

Page 9, line 18, "Figures 5-10" has been replaced with —Figures 6-10—;

Page 11, line 11, "carry" has been replaced with —carrying—; and

Page 11, line 19, "extend" has been replaced with —extended—.

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- The claims have been amended as in the following claim set:

Claim 1. (Currently Amended) In a sink having a sink drain for the discharge of debris, said sink drain including:

a trap pipe with a first slip joint nut ~~threadly~~ threadedly engaged on a debris receiving end;

a drain line pipe having a tubular ~~an annular~~ drain line flow space joined to said sink drain, said drain line pipe having a waste discharge end including a reduced diameter;

a washer having an inside diameter substantially corresponding to said reduced diameter of said waste discharge end, said washer being pressed by the threaded engagement of said first slip joint nut with said trap pipe for forming a liquid tight seal;

a side outlet pipe extending laterally from said drain line pipe, said side outlet pipe having a side outlet flow space extending from opposed sides of said tubular drain line flow space;

a strainer having an elongated strainer body containing an array of apertures traversing said tubular drain flow space and said side outlet flow space for extracting and retaining debris occurring in said drain line flow space upstream of said side outlet pipe, said elongated strainer body having a debris retention floor bounded by laterally spaced upstanding strainer side walls interconnected by an annular upstanding strainer end wall, a terminal end closure plate joined with said debris retention floor and said laterally spaced upstanding strainer side walls, support rails extending from said upstanding strainer side walls, said elongated strainer body having a length sufficient to form an abutting engagement by said annular upstanding strainer end wall with an internal annular wall surface of said drain line flow space at the junction between said

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drain line flow space and said side outlet flow space, ~~the~~ an aggregate area defined by the number and diameter of said array of apertures exceed ~~the~~ of the transverse cross sectional areas of said drain line flow space and said ~~a~~ side outlet flow space;

a second slip joint nut threadly engaged with said side outlet pipe to press said terminal end closure plate against said side outlet pipe for forming a fluid tight seal; ~~and~~

spaced apart guides in said drain line flow space and said side outlet flow space for engaging said strainer support rails to resist movement of said strainer in said drain line flow space and said side outlet; and

an insert structure defining said spaced apart guides for placement in said side outlet flow space to engage said strainer support rails, wherein said insert structure comprises a flange having a central opening intercepted by opposed strainer support grooves formed within respective insert structure side rails for slidably engaging said strainer support rails.

2. (Original) The sink drain according to claim 1 wherein said sink drain line further includes a sink tail piece for conducting a waste discharge to said drain line pipe, and a third slip joint nut threadly engaged with said drain line pipe for forming a fluid tight seal with said sink tail piece.

3. (Original) The sink drain according to claim 1 wherein said annular drain line pipe extends along opposed sides to opposed linear sides of said side outlet pipe.

4. (Original) The sink drain according to claim 1 wherein said side outlet pipe is tubular having a central outlet axis perpendicular to and intersecting a central longitudinal axis of said drain line flow space.

5. (Original) The sink drain according to claim 4 wherein said elongated strainer body is defined by a hemispherical cross sectional configuration forming a concave debris retention area containing said array of apertures and wherein said upstanding strainer side walls and said annular upstanding strainer end wall engage said side outlet pipe within a plane of support for said strainer remote to said central outlet axis sufficiently upstream along said central longitudinal axis of said drain line flow space to prevent inverted support of said strainer in said side outlet pipe.

6. (Currently Amended) The sink drain according to claim 4 further including a support rail protruding from said annular upstanding strainer end wall ~~end wall~~ to engage between said guides for resisting torque acting on said strainer during placement of said second slip joint nut.

7. (Currently Amended) The sink drain according to claim 5 wherein said strainer body is suspended on said laterally spaced strainer support rails at a position to space said hemispherical strainer body from said side outlet pipe and form a flow space therebetween.

8. (Original) The sink drain according to claim 1 wherein said upstanding strainer side walls are parallel residing along parallel sides of said side outlet flow space.

9. (Original) The sink drain according to claim 1 further including a handle extending from said ~~a~~ terminal end closure plate at a side thereof opposite said elongated strainer body.

10. (Original) The sink drain according to claim 1 further including a seal between said terminal end closure plate and said side outlet pipe.

11. (Original) The sink drain according to claim 1 wherein said apertures are sufficient in number and diameter to form strainer flow spaces approximating four times said drain line flow space.

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12. (Original) The sink drain according to claim 1 wherein said trap pipe includes threads encircling said debris receiving end for engaging said first slip joint nut.

13. (Original) The sink drain according to claim 1 wherein said debris retention floor is planer between said laterally spaced upstanding side walls to space said elongated strainer body from said side outlet pipe for forming a flow space there between.

14. (Original) The sink drain according to claim 1 wherein said trap pipe comprises a P trap.

15. (Original) The sink drain according to claim 1 wherein said trap pipe comprises a J trap.

16. (Original) The sink drain according to claim 1 wherein said trap pipe comprises an S trap.

17. (Original) The sink drain according to claim 1 wherein said side outlet pipe and said drain line pipe are integral and comprises a Tee.

18. (canceled)

19. (canceled)

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:
- The limitations of claims 18 and 19 have been incorporated into claim 1. The closest cited art—Marchionda (U.S. 5,525,215); Canelli (U.S. 4,949,406); Peterson (U.S. 4,045,351); and Izquierdo (U.S. 1,817,376)—fail to anticipate or render obvious, alone or in any proper combination, the insert structure defining the spaced apart guides for placement in the side outlet flow space to engage the strainer support rails, wherein the insert structure comprises a flange having a central opening intercepted by opposed strainer support grooves formed within respective insert structure side rails for slidably engaging the strainer support rails—in combination with all the other elements of claim 1.
 - The claims were also amended to correct for antecedent bases, e.g. “said reduced diameter” of claim 1 and to correct typographical errors, e.g. “end wall end wall” of claim 6.
 - The reference cited in the specification have also been cited on the attached form 892.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee.

Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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5. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 273-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil
Primary Examiner
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TKC
June 6, 2006